

1. A shock absorber adjusting device comprising:
 - a handle with a proximal end and a distal end;
 - a head coupled to said distal end and defining an engaging member that is configured to couple to a shock absorber adjustment nut to facilitate rotation thereof; and
 - a ratcheting mechanism cooperative with said engaging member such that upon ratcheting rotation of said device about a substantially longitudinal axis of said shock absorber, said shock absorber adjustment nut can be rotated.
2. The device of claim 1, wherein said head comprises:
 - a closed end disposed adjacent said distal end of said handle; and
 - an open end disposed away from said closed end, said open end configured to allow placement of said device over said shock absorber to facilitate engagement of said device and said shock absorber adjustment nut.
3. The device of claim 2, wherein at least a portion of said engaging member defines a curvilinear race with pawls making up said ratcheting mechanism forming at least a portion of said race.
4. The device of claim 1, further comprising an adapter ring configured to fit within said engaging member, said adapter ring comprising a plurality of teeth disposed around the outer periphery thereof, said adapter ring teeth configured to engage said pawls to make said adapter ring rotatably responsive to rotation of said head.
5. The device of claim 4, wherein said adapter ring comprises a plurality of complementary parts configured to be arranged together to define said ring.

6. The device of claim 4, further comprising a plurality of detents projecting from said adapter ring to define a castellated shape thereby, said detents configured to be substantially aligned with corresponding slots in said shock absorber adjustment nut such that said shock absorber nut is rotatably responsive to said adapter ring.

7. The device of claim 6, wherein at least a portion of said plurality of detents define an aperture therein.

8. The device of claim 7, further comprising a securing pin disposable in said detent aperture.

9. The device of claim 1, further comprising a hinge disposed between said head and said handle to facilitate pivotal movement therebetween.

10. The device of claim 1, wherein said device is configured such that an angle subtended by said ratcheting rotation is up to six degrees.

11. The device of claim 10, wherein said angle subtended by said ratcheting rotation is approximately four degrees.

12. A shock absorber adjusting wrench comprising:

a handle with a proximal end and a distal end;

a head coupled to said distal end, said head defining an engaging member that is configured to couple to a shock absorber adjustment nut to facilitate rotation thereof, said head comprising:

a closed end disposed adjacent said distal end of said handle; and

an open end disposed away from said closed end, said open end configured to allow placement of said wrench over said shock absorber to facilitate coupling of said engaging member to said shock absorber adjustment nut; a hinge disposed between said handle and said head to facilitate pivotal movement therebetween; and

a ratcheting mechanism cooperative with said engaging member such that upon ratcheting rotation of said wrench about said shock absorber adjustment nut threaded along a substantially longitudinal axis of said shock absorber, at least one of said shock absorber or a spring coupled thereto can be adjusted.

13. A shock absorber adjusting assembly comprising:

a wrench comprising:

a handle;

a nut-engaging member coupled to said handle; and

a ratcheting mechanism cooperative with said nut-engaging member; and

a nut disposable on a shock absorber and configured to cooperate with said nut-engaging member to facilitate adjustment of at least one of said shock absorber or a spring coupled thereto.

14. The shock absorber adjusting assembly of claim 13, wherein said nut-engaging member comprises:

a closed end disposed adjacent said handle; and

an open end disposed away from said closed end, said open end configured to allow placement of said nut-engaging member over said shock absorber to facilitate engagement of said nut-engaging member and said shock absorber adjustment nut.

15. The shock absorber adjusting assembly of claim 14, wherein at least a portion of said nut-engaging member defines a race with pawls making up said ratcheting mechanism forming at least a portion of said race.

16. The shock absorber adjusting assembly of claim 15, wherein said nut comprises a plurality of teeth disposed around its outer surface, said teeth on said outer surface configured to engage said pawls to make said nut rotatably responsive to rotation of said wrench.

17. The shock absorber adjusting assembly of claim 15, further comprising an adapter ring configured to fit between said nut-engaging member and said nut, said adapter ring comprising a plurality of teeth disposed around the outer periphery thereof, said adapter ring teeth configured to engage said pawls to make said adapter ring responsive to rotation of said head.

18. The shock absorber adjusting assembly of claim 17, further comprising at least one bore formed in said nut, and a securing member disposable in said bore.

19. The shock absorber adjusting assembly of claim 18, further comprising a block disposable in said bore adjacent said securing member.

20. The shock absorber adjusting assembly of claim 13, wherein said nut is made from a material having a lower density than steel.

21. The shock absorber adjusting assembly of claim 20, wherein material is a lightweight metal.

22. The shock absorber adjusting assembly of claim 21, wherein said lightweight metal is aluminum or an alloy thereof.

23. The shock absorber adjusting assembly of claim 22, wherein said aluminum or alloys thereof is anodized.

24. The shock absorber adjusting assembly of claim 17, wherein said nut further comprises a protective layer formed on the surface thereof.

25. The shock absorber adjusting assembly of claim 13, further comprising a hinge disposed between said nut-engaging member and said handle to facilitate pivotal movement therebetween.

26. A shock absorber adjusting assembly comprising:

a wrench comprising:

a handle;

an engaging member coupled to said handle; and

a ratcheting mechanism cooperative with said engaging member; and

an adapter ring configured to couple said engaging member to a nut disposed on a shock absorber, said adapter ring configured to be removably disposed in said engaging member.

27. The shock absorber adjusting assembly of claim 26, wherein said engaging member comprises:

a closed end disposed adjacent said handle; and

an open end disposed away from said closed end, said open end configured to allow placement of said engaging member and said adapter ring over said shock absorber to facilitate engagement of said adapter ring and said nut.

28. The shock absorber adjusting assembly of claim 27, wherein at least a portion of said engaging member defines a race such that pawls making up said ratcheting mechanism form at least a portion of said race.

29. The shock absorber adjusting assembly of claim 28, wherein said adapter ring comprises a plurality of teeth disposed around the periphery thereof, said teeth on said outer surface configured to engage said pawls to make said adapter ring rotatably responsive to rotation of said wrench.

30. The shock absorber adjusting assembly of claim 29, further comprising a plurality of detents projecting from said adapter ring to define a castellated shape thereby, said detents configured to be substantially alignable with corresponding slots in said nut such that said nut is rotatably responsive to said adapter ring.

31. The shock absorber adjusting assembly of claim 30, wherein at least a portion of said plurality of detents define an aperture therein.

32. The shock absorber adjusting assembly of claim 31, further comprising a securing pin disposable in said aperture and into said nut, thereby preserving the rotatable relationship between said adapter ring and said nut.

33. The shock absorber adjusting assembly of claim 29, wherein said teeth on said outer surface are spaced substantially four degrees apart.

34. The shock absorber adjusting assembly of claim 26, further comprising at least one thrust bearing configured to be disposed against at least one of said nut or said adapter ring.

35. A method of using a shock absorber adjusting device, said method comprising:
- arranging a shock absorber system to include a shock absorber adjustment nut that is configured to facilitate adjustment of at least one of a spring or shock absorber making up said shock absorber system;
- configuring a shock absorber adjusting device to comprise:
- a handle with a proximal end and a distal end;
- a head coupled to said distal end and defining an engaging member that is configured to couple to said shock absorber adjustment nut to facilitate rotation thereof; and
- a ratcheting mechanism cooperative with said engaging member such that upon ratcheting rotation of said device about said shock absorber adjustment nut threaded along a substantially longitudinal axis of said shock absorber, at least one of said shock absorber or said spring coupled thereto can be adjusted;
- coupling said device to said shock absorber adjustment nut; and
- ratcheting said device to effect an adjustment to said shock absorber adjustment nut.
36. The method of claim 35, further comprising placing an adapter ring between said shock absorber adjustment nut and said engaging member to facilitate said coupling therebetween.
37. The method according to claim 35, further comprising placing at least one thrust bearing against at least one of said adapter ring or said shock absorber adjustment nut.
38. The method of claim 35, further comprising configuring said device to include a hinge disposed between said head and said handle to facilitate pivotal movement therebetween.

39. The method of claim 35, further comprising configuring said head of said device to include:

a closed end disposed adjacent said distal end of said handle; and
an open end disposed away from said closed end, said open end configured to allow placement of said device over said shock absorber system to facilitate engagement of said device and said shock absorber adjustment nut.